

Performing Procedures

29.	Do a laboratory activity, investigation, or experiment
38.	Follow step-by-step directions
39.	Use science equipment or measuring tools
40.	Collect data
42.	Organize and display information in tables or graphs
45.	Make observations/classifications
58.	Practice procedures
59.	Use sensors and probes (for example, CBL's)

Communicate Understanding

<i>How much of the science instructional time in the target class do students use to engage in the following tasks?</i>	
28.	Write about science in a report/paper on science topics
<i>When students in the target class work in pairs or small groups as part of science instruction (other than in sci laboratory), how much of that time do they:</i>	
46.	Talk about ways to solve science problems, such as investigations
48.	Write results or prepare a presentation from a laboratory activity, investigation, experiment or research project
50.	Work on a writing project or entries from portfolios seeking peer comments to improve work
<i>When students in the target class collect data or information about science from books, magazines, computers or other sources (other than laboratory activities), how much of that time do they:</i>	
52.	Have class discussions about the data
53.	Organize and display the information in tables or graph
56.	Make a presentation to the class on the data, analysis, or interpretation

Analyze Information

<i>When students in the target class collect data or information about science from books, magazines, computers or other sources (other than laboratory activities), how much of that time do they:</i>	
43.	Analyze and interpret science data
54.	Make a prediction based on the data
55.	Analyze and interpret the information or data orally or in writing
<i>When students in the target class are engaged in activities that involve the use of calculators, computers, or other educational technology as part of science instruction, how much of that time do they:</i>	
61.	Display and analyze data

Cohort One			Cohort Two	
2008 n=19	2009 n= 19	2010 n= 19	2009 n= 29	2010 n=29
mean/st. dev.	mean/st. dev.	mean/st. dev.	mean/st. dev.	mean/st. dev.
1.2 (0.6)	1.5 (0.8)	1.4 (0.7)	1.5 (0.7)	1.6 (0.7)

Amount of Time (for the school year)

None
 Little (10% or less of instructional time for the school yr)
 Some (11-25% of instructional time for the school yr)
 Moderate (26-50% of instructional time for the school yr)
 Considerable (50% or more of instructional time for the school yr)

Cohort One			Cohort Two	
2008 n=19	2009 n= 19	2010 n= 19	2009 n= 29	2010 n=29
mean/st. dev.	mean/st. dev.	mean/st. dev.	mean/st. dev.	mean/st. dev.
0.9 (0.5)	1.2 (0.7)	1.1 (0.7)	1.1 (0.6)	1.3 (0.8)

Amount of Time (for the school year)

None
 Little (10% or less of instructional time for the school yr)
 Some (11-25% of instructional time for the school yr)
 Moderate (26-50% of instructional time for the school yr)
 Considerable (50% or more of instructional time for the school yr)

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0.9 (0.5)	1.3 (0.8)	1.4 (1.1)	1.3 (0.8)	1.5 (1.0)

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